

REMARKS

Claims 19-36 are presented for reconsideration.

In the Office Action the drawings were objected to since the portions of certain claims were not alleged to be illustrated, claim 16 was objected to, claims 1-18 were rejected under 35 U.S.C. §112, second paragraph. Claims 1-5, 8-10 and 14-15 were rejected under 35 U.S.C. §103 over Dreyer United States Patent No. 5,692,822. Claims 1-3 and 16-18 were rejected under 35 U.S.C. §103 as being unpatentable over Yamada et al. United States Patent No. 5,704,703. Claim 6, 7 and 11-13 were rejected under 35 U.S.C. §103 as being unpatentable over Yamada et al. in further view of Franck et al.

The Office Action included Form 1449 for an Information Disclosure Statement, which was received in the Patent and Trademark Office on October 9, 2001. It is also noted that the list of citations in the Form PTO 892 does not include citation to Franck et al.

In addition a supplement Information Disclosure Statement that was mailed by Certificate on January 16, 2002 and was received by the PTO mailroom on February 12, 2002 (see copy of postcard). It is assumed that the Examiner has a copy of this paper and the references. If not, please advise so that a second copy can be provided.

With regard to the objections to the drawings, attached herewith is a proposed drawing correction, which adds a Figure 10 and makes certain changes indicated in red in Figure 8. If these corrections are approved, formal drawings incorporating these changes will be submitted once the application has been allowed.

By this Amendment, the specification has been substantially amended and therefore a substitute specification has been provided to replace original pages 1-23. A marked-up version of the specification is attached as an Appendix. By this Amendment, original claims 1-18 have been cancelled without prejudice and new claims 19-36 have been presented which have been carefully prepared to overcome the objections under 35 U.S.C. §112.

With regard to the objections to the drawings, it is noted that the cap reflectors of original claim 2 are identified in a description as being the roof reflector 5 such as in Figure 1. The partially light transmissive cap reflector of original claim 4 is the cap reflector 5' of newly presented Figure 10, which has different reflection properties than the totally reflector of 5 of Figure 1 and is submitted that those features are now clearly shown in the drawings. With regard to the input reflector in original claim 11, it is submitted the input reflector 11a of new Figure 10 illustrates the partially directing of light through the opening 76 to obtain partial lighting. With regard to the spacer elements of claim 13, the specification has been amended to identify the spacers or frame elements 42 as spacer elements, and also Figure 8 has been amended to show that a spacer element such as 42a has a different dimension than the spacer element 42. With regard to the predetermined surface in areas recited in original claim 16, it is submitted that when the elements such as 60, 62 (Figure 8) are placed on the frame, they do not completely fill the space since spacer elements 42, 42a are provided between adjacent elements. It is believed, that with the proposed drawing changes, all elements recited in the claims are clearly illustrated and that the Examiner's objections to the drawings should be withdrawn.

Applicants' invention is directed to a system of light units or luminaires which are particularly useful for both indoor and outdoor lighting. The units are all of standard sizes and have standard prefabricated components, which are interchangeable. In view of the structure, light emission properties of one unit can be easily changed by changing one of the optical components which influences the light. In other words, changing the light refracting structure on one of the components such as 22, 24 enables changing how the light is directed out of the light unit. This has the advantage that a plurality of light units having different light emission properties can be produced by substituting or changing one of the optical components of the unit. It is submitted that none of the references cited by the Examiner teach or suggest these features. For example, Dreyer United States Patent No. 5,692,822 discloses a line light source or luminaire, which essentially consists of a tube-like light guide. The light is coupled in this light guide by an input reflector such as 22, 22' from both ends. The light is coupled out of the light guide by means of prism structure such as is shown in Figure 2. This document does not disclose a system of luminaires in the sense of Applicants' invention, which is a system of luminaires or light units wherein different light units having different light emission properties can be obtained by changing one or more of the optical components. In addition, Dreyer does not teach or suggest a light unit, which has a support structure on which the optical component can be mounted on the support structure of any of the units. While Dreyer says that the position of the lenses, which may be an optical effective element, may vary. There is no teaching of a fixed position on the support structure. It is submitted that this reference does not teach or suggest a structure recited in independent claim 19, for example, the support

structure, at least one hollow light guide with a cavity, at least one lamp for directing light into the cavity, one or more optical components having light directing properties for influencing the beam path of the light output from the lamp, at least one of said optical component being a light permeable component having a medium with a first index refraction having a boundary surface with a medium of the second index refraction different from the first, said light permeable component being part of the light output device and said boundary surface being provided with light refracting structure for deflecting the light in at least one plane directed perpendicular to the light exit phase so that the light intensity distribution curve of the light emerging from the light exit phases influenced in this plane. It is also submitted that the reference does not teach or suggest that at least one of the optical components of each light unit is mounted on the support structure and is dimensioned so it can be used in any one of the light units of the system so that replacing the component light unit with another of the components having different properties of light unit will have different light emission properties. For these reasons, it is submitted that claim 19 is clearly patentable over the teachings of Dreyer and allowable.

It is noted in the rejection of the claims in paragraph 6 on page 6, reference is made to Hooker et al. Hooker et al. is directed to a back light LCD apparatus. It is submitted that this is completely different that Applicants' claimed invention and is non-analogous art. This is not directed to a system of light units with different light emission property. In fact, it is submitted it does not recognize that different lamps or other light emission sections of the light unit have different light emission property. The Abstract, which was referred to by the Examiner, only says that there is an attenuation member with different levels of attenuation of the light output surface in

order to have an even light output over the whole surface. This does not in any way indicate or otherwise suggest different light units with different light emission properties.

In rejecting the claims on Yamada et al., it is submitted that Yamada et al. is disclosing a back lighting device for a liquid crystal display device and it is submitted that this is not directed to a light unit for indoor or outdoor lighting as Applicants' claimed system of light units. It is also noted in Yamada et al., light is coupled into a solid waveguide which may or may not contain any reflective casing and which may be considered. In the embodiment of Figure 14 and 18, the prism plate such as 76, 102 and 110 control the light emission from the device. This document does not relate to light units for lighting. Essentially the same arguments with regard to Dreyer apply to this reference. There is no indication of a common support structure nor is there any indication of light units having different light emission properties. Apart from that no system of light units is disclosed, but only one single light element. While Yamada et al. may disclose a cap reflector, see Reference 107 in Figure 18. However, it is not apparent that the top or cap reflector of different light units of the system are exchangeable, nor is it disclosed that the member such as 107 may have different reflecting properties. It is also not apparent that such a differing property are intended or desired since the purpose of this member is just to reflect the light back to the light output surface. It is submitted that Yamada et al. does not teach or suggest the structure such as recited in independent claim 19.

In the rejection of claim 9 on Dreyer, the Examiner also refers to Nagatani, United States Patent No. 5,863,114. It is noted, that this reference is again directed

to a light emission panel for back lighting using prism plates to adjust the light. It is submitted it is not directed to a light unit for indoor lighting as in Applicants' device.


Finally, in rejecting claims 6, 7 and 11-13 relies on Yamada et al., in view Franck et al. While Franck may show a light unit having light output devices with planar elements having light refractive structure with parts being dimensioned so that they can be introduced in a support structure of a first and second light of two embodiments it does not teach or suggest that the two embodiments have the same dimensions. In addition it is submitted that the reference discloses only plates with the same refractive structure such as shown in Figures 3-8. It is submitted there is no suggestion of different structures having different light directing properties for the plates and especially interchanging these plates so that a common system of units can have their light emission properties changed by changing the plates. It is also submitted, that since Yamada is directed to a backlighting device for an optical screen, that the combination of Franck et al. with Yamada et al. would not be obvious since they are directed to completely different systems and non-analogous art. For these reasons, it is respectfully submitted that independent claim 19 and dependent claim 20-33 are patentable over the references of record and allowable.

With regard to the method claims such as 34-36, it is respectfully submitted that none of the references teach or suggest the method steps recited in these claims and therefore these claims are clearly patentable over the prior art and allowable.

In view of the above remarks, it is respectfully submitted that claims 19-36 are allowable over the references of record.

In view of the amendments and explanations contained hereinabove, it is respectfully submitted that this application is now in condition for allowance and further reconsideration to that end is earnestly solicited.

Submitted by,



(Reg. 27,149)

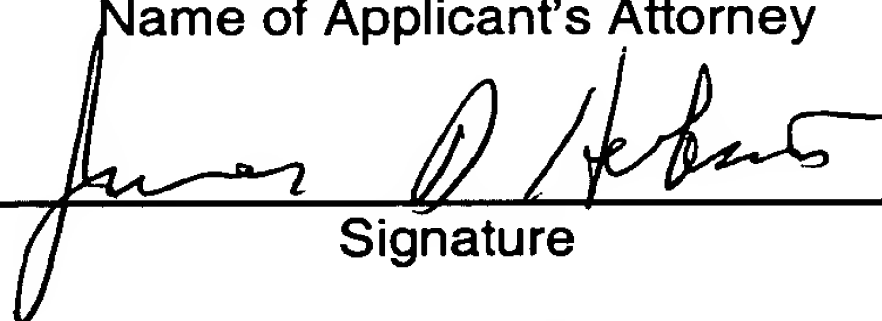
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James D. Hobart

Name of Applicant's Attorney



Signature

July 3, 2002

Date